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THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF EDUCATION OFFICE OF SECONDARY EDUCATION

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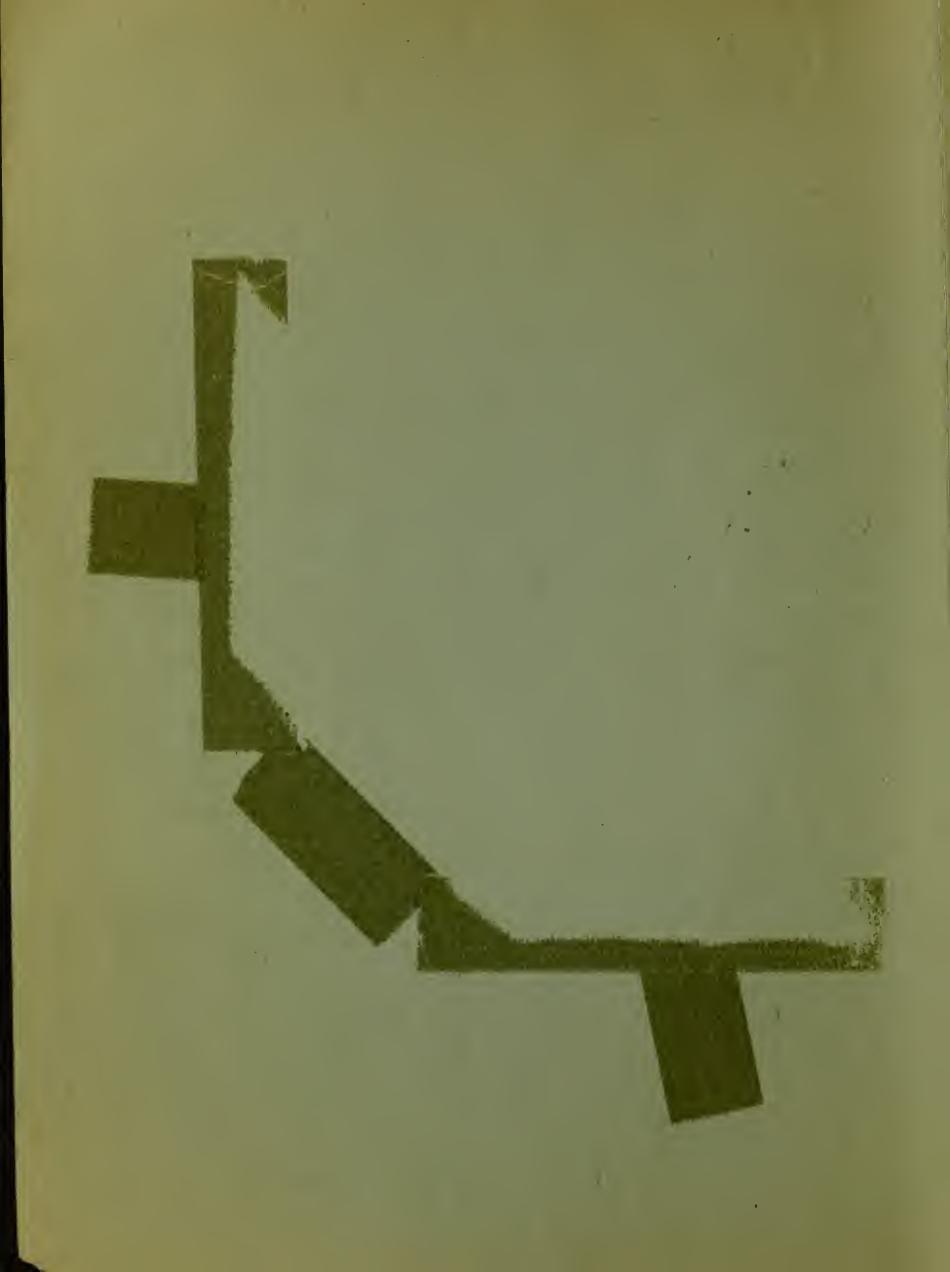
DOCUMENTS COLLECTION

1. A Study of Drop-outs or Early School Leavers in Massachusetts Public Secondary Schools for the School Year 1954-55

- 2. Time Schedules in Massachusetts
 Public High Schools
- 3. Facts Relating to Science Instruction in Grades 9-12 in Massachusetts Secondary Schools
- 4. Subjects Studied in Massachusetts
 High Schools
- 5. Subjects Studied in Grade 9 of Massachusetts Junior High Schools

STUDIES IN SECONDARY EDUCATION

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A Study of Drop-outs or Early School Leavers in Massachusetts Public Secondary Schools for the School Year 1954-55

For the fourth successive year the Department of Education, with the cooperation of secondary school principals and directors of guidance, has made a study of drop-outs in the public secondary schools of the Commonwealth. This study was directed to all public schools which housed any combination of grades seven through twelve. Schools reporting had organizations including three, four, five, and six-year high schools, two and three-year junior high schools, and elementary schools having grades seven or seven and eight.

I. Schools Reporting

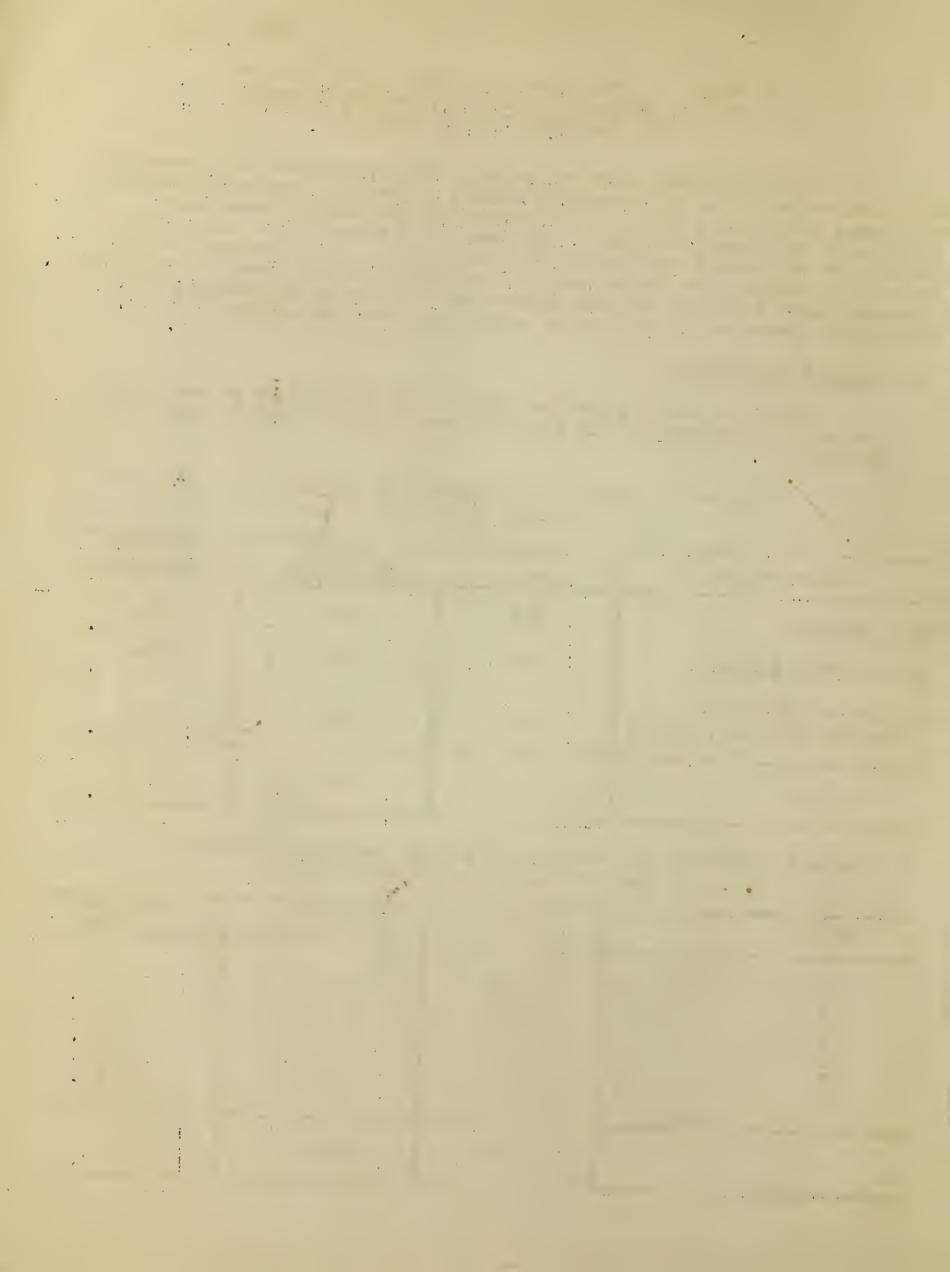
Tables 1 and 2 show the number and percent of schools and the average membership in grades seven through twelve which reported.

Table 1 - Number and Percent of Schools
Reporting by Organization

Organization	Total Number	Number Reporting	Percent Reporting
High Schools	21,7	241	98.0
Junior High Schools	196	188	95.9
Elementary Schools Housing Grades 7 and 8	181	162	89.5
Totals	624	591	94.7

Table 2 - Number and Percent of Yearly Average Membership in Schools Reporting by Grades

Grade	Total	Number	Percent
	Number	Reporting	Reporting
7	54,909	47,531	86.5
8	46,797	42,184	90.1
9	44,020	43,259	98.2
10	40,830	39,209	96.0
11	35,706	34,446	96.4
12	30,996	30,117	97.1
	253,258	236,745	93.4



II. Drop-Outs

The total number of drop-outs in grades nine through twelve was 8,086, or 5.5% of the 147,031 total average membership in schools reporting. By reference to drop-out studies made by the Massachusetts Department of Education each year since 1951, the data indicate that for every 100 students who entered grade nine in Massachusetts secondary schools in September, 1951, about 78 graduated in June, 1955.

Table 3 shows the number of drop-outs by grade and sex. A consistent pattern has been evident through the drop-out studies of the past four years with the largest number of drop-outs occurring in grade ten, and boy drop-outs out-numbering girl drop-outs.

Table 3 - Number and Percent of Total Drop-Outs by Sex and Grade

Grade	Boys	Girls	Total	Percent
7 8 9 10 11 12	288 525 1,178 1,630 1,317 594	130 258 635 1,282 1,052 398	418 783 1,813 2,912 2,369 992	4.5 8.4 19.5 31.3 25.5 10.6
Totals	5,532	3 ,7 55	9,287	

Viewing the drop-out statistics from another angle, as shown in Table 1, the number of drop-outs in each grade is compared to the average membership of that grade. There is clear indication that grades ten and eleven are the most critical years as secondary schools study the implications of drop-outs, in that eight and seven respectively of each 100 pupils in grades ten and eleven dropped out of school in 1954-55.

Table 4 - Number and Percent of Drop-Outs by Grade
Compared to Average Membership of
Schools Reporting

Grade	Average Membership of Schools Reporting	Number	Percent
7	47,531	418	0.9
8	42,184	783	1.8
9	43,259	1,813	4.2
10	39,209	2,912	8.2
11	34,446	2,369	6.9
12	30,117	992	3.4

III. Reasons for Leaving

Although the questionnaire asked for the chief reason for each pupil dropping out, some who responded listed more than one reason for some drop-outs. Therefore, the total number of reasons exceeds the total number of drop-outs.

Table 5 - Reasons for Leaving School in 1954-55

	Reasons for Leaving.	Boys		Girls		Total
1.	Preferred work to school	2,300	(41%)	1,477	(39%)	3,777
2.	Was not interested in school work	1,186	(20%)	695	(18%)	1,881
3.	Needed money to buy clothes and help at home	195		311	(8%)	506
4.	Wanted spending money	59		57		116
5.	Was failing and didn't want to repeat grade	343	(6%)	163		506
6.	Could not learn in school and was discouraged	209		122		331
7.	Dîsliked a certain subject	16		13		29
8.	Disliked a certain teacher	14		9		23
9.	Friends had left school	32		32		64
1.0.	Could learn more out of school than in school	59		16		75
11.	Ill health	146		251		397
12.	Parents wanted youth to leave school	156		237		393
1.3.	Marriage	16		423	(11%)	439
14.	Entered U. S. armed services	824	(15%)	8		832
15.	Other	14		14		28
	Total	5,569		3,828		9,397

An analysis of table 5 shows that three reasons, "Preferred work to school," "Was not interested in school work," and "Entered U. S. armed services" accounted for 76 percent of the boy drop-outs. Four reasons, "Preferred work to school," "Was not interested in school work," "Needed money to buy clothes and help at home," and "Marriage" accounted for 76 percent of the girl drop-outs.

Taken from "Early School Leavers," by Harold J. Dillon, with slight revision.

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A Study of Time Schedules in Massachusetts Public High Schools

The following status studies of various items and factors in the time schedules of Massachusetts Public High Schools were taken from the 1954-55 Biennial Surveys of the Office of Secondary Education, Massachusetts Department of Education. It should be clear that these studies are indications of current practice and must be analyzed on that basis.

Number of Periods per Day

About one-half, or 127, of the high schools of the State include seven periods within the framework of the school day. Onefourth of the high schools, or 63, run a six period school day. The following table indicates the number of schools using a five, six, seven, or eight period day:

Enrollment	<u>.</u>	Periods	per Day	-
	<u>5</u>	6	7	8
Over 500 201 - 500 100 - 200 Under 100 Six-year Regional	5 3 2 - 1	30 11 7 - 14 1	39 23 16 5 43	4 5 2 5 10
Totals	11	63	127	26

In addition to the schools represented in the above table, some 21 high schools of the Commonwealth use a combination of five, six, seven, and eight period days. Seventeen of these 21 schools use a combination of six and seven period days.

> Gross Length of the School Day in Hours and Minutes in 247 Massachusetts Public High Schools

Gross Length in Hours and Minutes Number of High Schools

m 00			_
7:00 -	7:15		1
6:40 -	6:59		4
6:20 -	6:39		11
6:00 -	6:19		73
5:40 -	5:59		60
5:20 -	5:39		56
5:00	5:19		27
4:40 -	4:59		1
4:20 -	4:39		5
4:05 -	4:19		_ 3
			247
			241

4 hours, 5 minutes to 7 hours, 15 minutes 5 hours, 52 minutes 5 hours, 49 minutes Range Mean Median

Digitized by the Internet Archive in 2013

Net Length of School Day in Hours and Minutes 247 Massachusetts Public High Schools

Net Length in Hours and Minutes

Number of High Schools

5:50 5:40 5:30 5:20 5:10 5:00 4:50 4:40 4:30 4:20	111111111	6:5999999999999999999999999999999999999			_
•					6
•		4:19			
					247

Range Mean Median 4 hours to 6 hours, 10 minutes 5 hours, 14 minutes 5 hours, 17 minutes

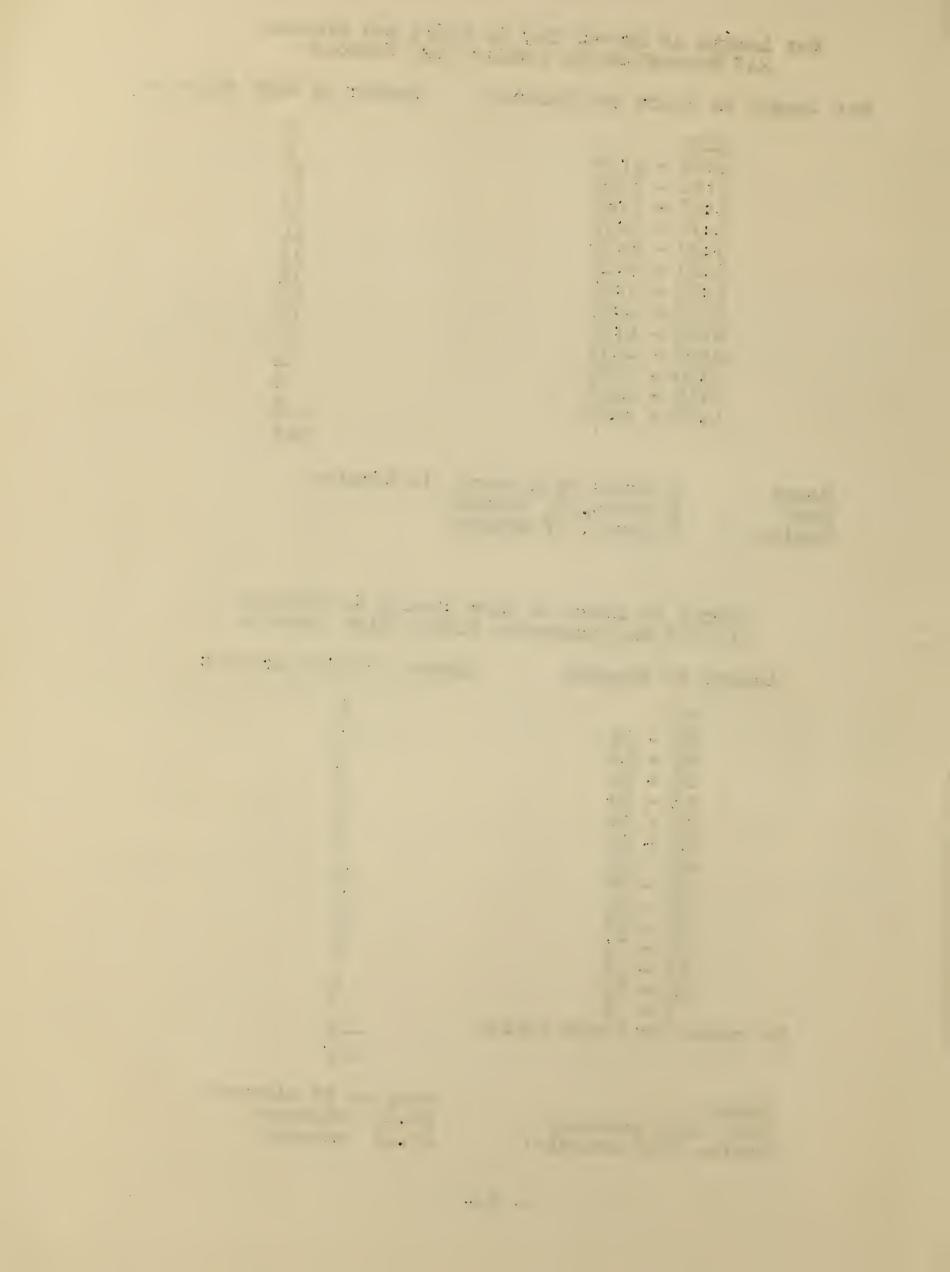
in 247 Massachusetts Public High Schools

Length of Lunch or Noon Period in Minutes

Length in Minutes

Number of High Schools

Range Mean (238 schools) Median (238 schools) None to 75 minutes 28.03 minutes 25.62 minutes



Length of Periods in the Weekly Schedule

A status study of the length of periods in Massachusetts Public High Schools presents a varied pattern, not only from the standpoint of length of periods, but also considering the number of either standard length or varied length periods within the frame-work of the school week. The following presents practices common to the 247 high schools of the study, and includes brief summaries of combinations and variations under each, taking into account the number of periods in the weekly schedules.

Periods less than 35 Minutes

Twenty-seven schools included periods of less than 35 minutes in their schedules and 214 of these schools have 5 or less periods per week of this length. For the most part, periods of such length are used for home room or activity periods in conjunction with longer periods in other curricular fields.

Periods 35 - 39 Minutes

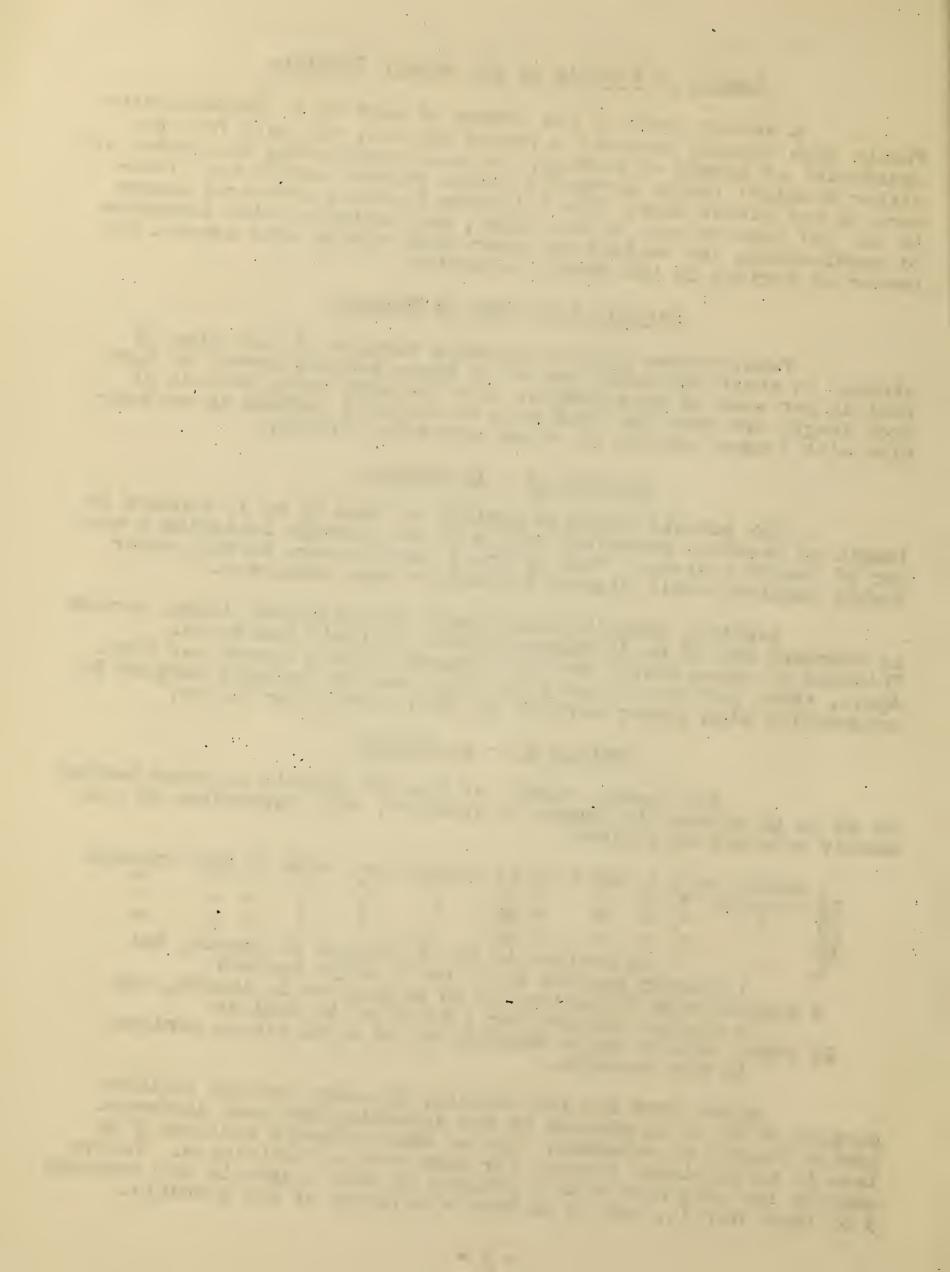
Six schools reported periods of from 35 to 39 minutes in length as standard schedule, with 4 of the schools including a number of longer periods. Four of the 6 schools were working under double sessions until planned facilities were completed.

Eighteen schools using longer and different length periods as standard had 35 to 39 minute periods in their schedules. Thirteen of these have 5 or less periods of this length per week. Again, these periods are used for home room or activity periods in conjunction with longer periods in other curricular fields.

Periods 40 - 44 Minutes

One hundred twenty of the 247 schools reported periods of 40 to 44 minutes in length as standard, with variations in the weekly schedule as follows:

Apart from the 120 schools, 22 other schools included periods of 40 to 44 minutes in the schedule, but used different period lengths as standard. Ten of these schools included 5 or less 40 to 44 minute periods for home room or activities. Twelve schools included more than 5 periods of such length in the schedule, 5 of them over 10, but in no case a majority of the schedule.



Periods 45 - 49 minutes

Seventy-six of the 247 schools reported periods of 45 to 49 as standard, with variations in the weekly schedule as follows:

- 1 school with a total of 31 periods per week in the schedule 25 2 schools 11 11 11 11 17 11 30 20 ?1 11 35 30 1 school 11 40
- 13 schools had a majority of 45 to 49 minute periods in the schedule
- 9 schools with 30 periods 45 to 49 minutes in length, and 5 shorter periods for a total of 35 periods
- 21 other schools included periods of 45 to 49 minutes in their schedules, but used different period lengths as standard
- 9 of these schools had 5 or less such periods, 5 schools 10 or less, and 7 had over 10 such length periods.

Periods 50 - 54 Minutes

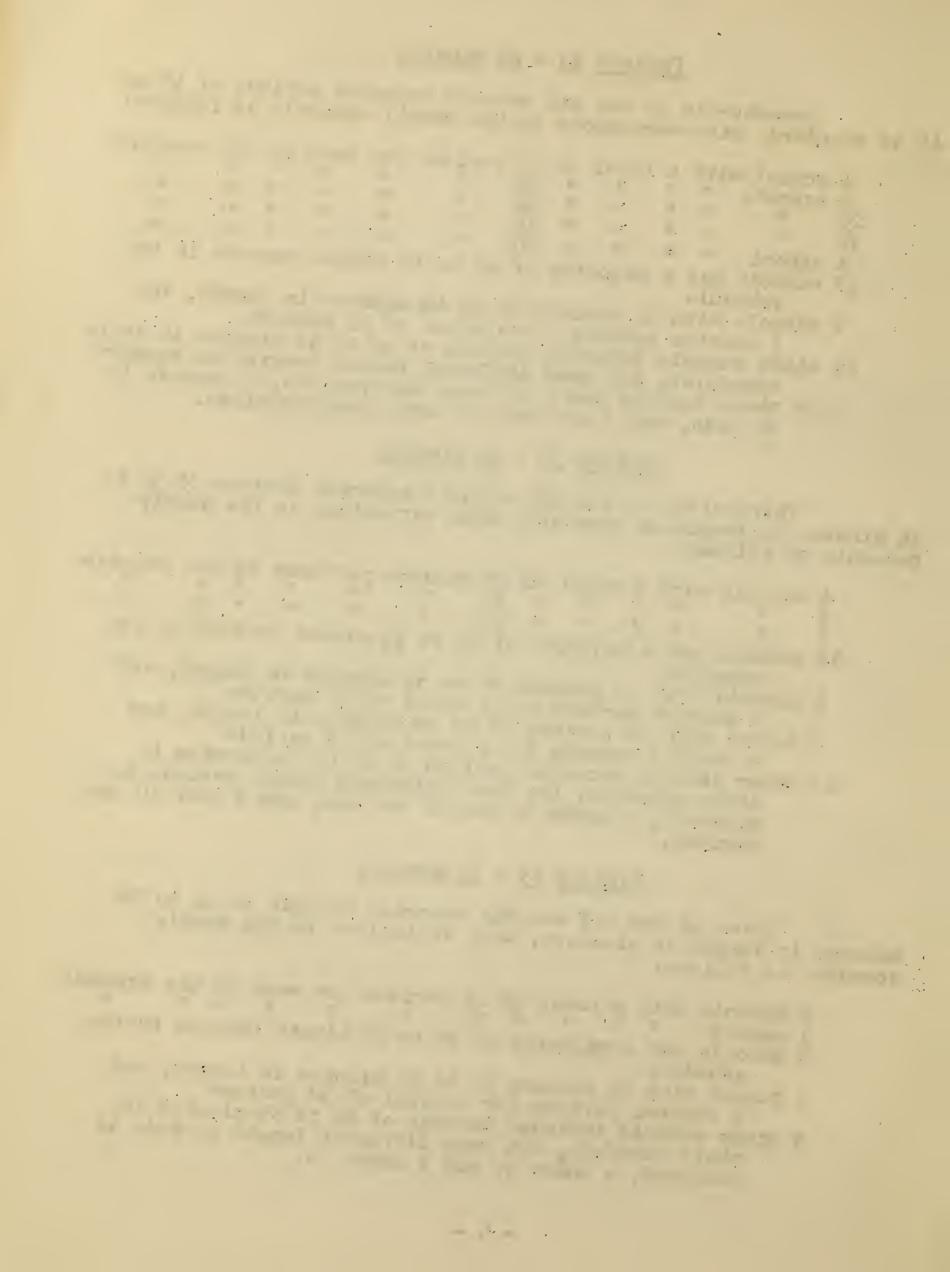
Thirty-four of the 247 schools reported periods of 50 to 54 minutes in length as standard, with variations in the weekly schedule as follows:

- 14 schools had a majority of 50 to 54 minute periods in the schedule
- 4 schools with 30 periods 50 to 54 minutes in length, and 5 shorter periods for a total of 35 periods
- 1 school with 25 periods 50 to 54 minutes in length, and 5 shorter periods for a total of 30 periods
- 12 other schools included periods of 50 to 54 minutes in their schedule, but used different length periods as standard, 5 under 5, two 10 or less, and 5 over 10 such periods.

Periods 55 - 59 Minutes

Seven of the 247 schools reported periods of 55 to 59 minutes in length as standard, with variations in the weekly schedule as follows:

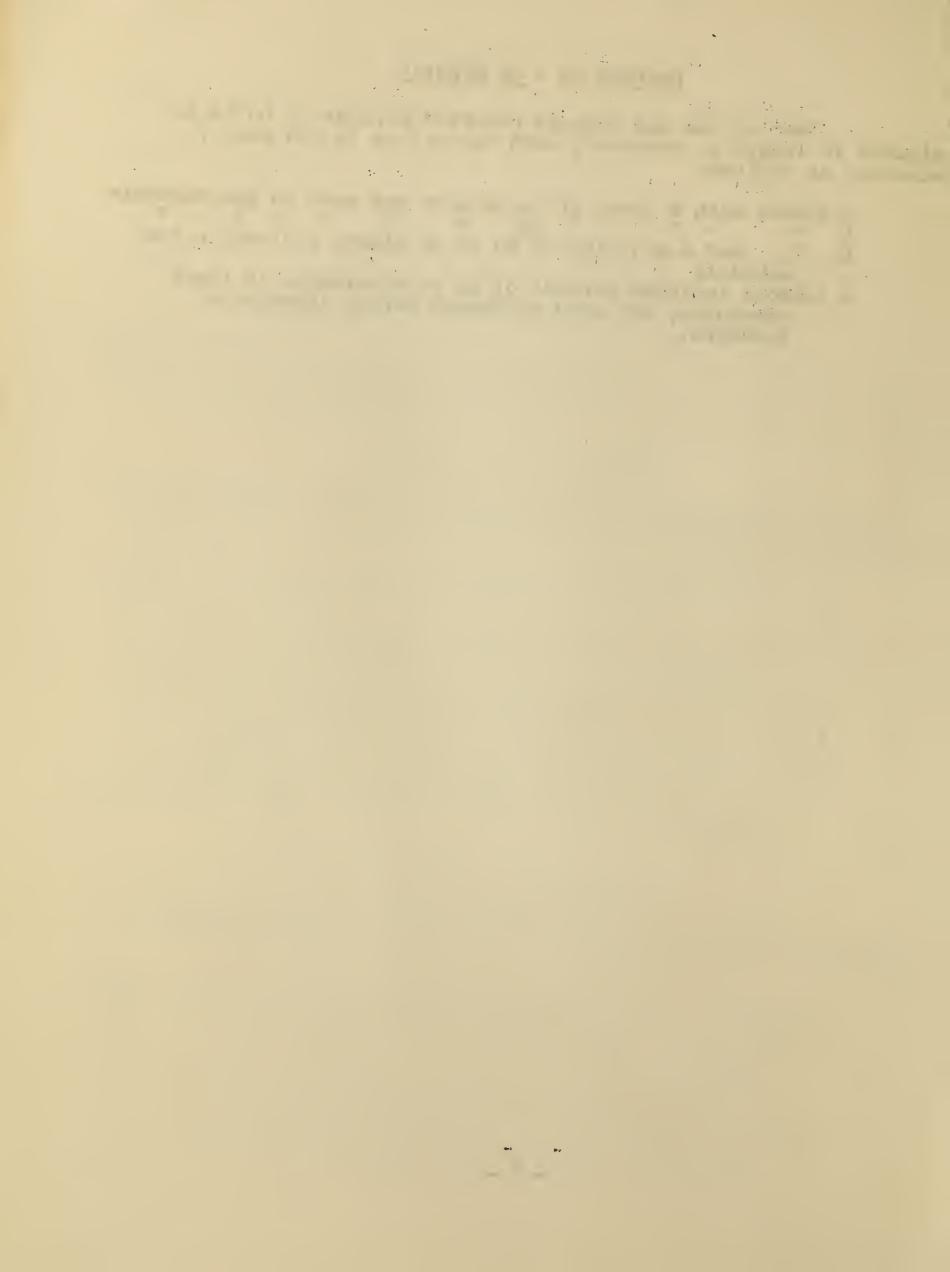
- 2 schools with a total of 25 periods per week in the schedule 1 school " " " 30 " " " " " " "
- 3 schools had a majority of 55 to 59 minute periods in the schedule
- 1 school with 25 periods 55 to 59 minutes in length, and 5 shorter periods for a total of 30 periods
- 5 other schools included periods of 55 to 59 minutes in their schedule, but used different length periods as standard, 4 under 5, and 1 under 10.



Periods 60 - 64 Minutes

Four of the 247 schools reported periods of 60 to 64 minutes in length as standard, with variations in the weekly schedule as follows:

- l school with a total of 24 periods per week in the schedule 1 " " " " 25 " " " " " " " " " "
- had a majority of 60 to 64 minute periods in the schedule
- 4 schools included periods of 60 to 64 minutes in their schedules, but used different period lengths as standard.

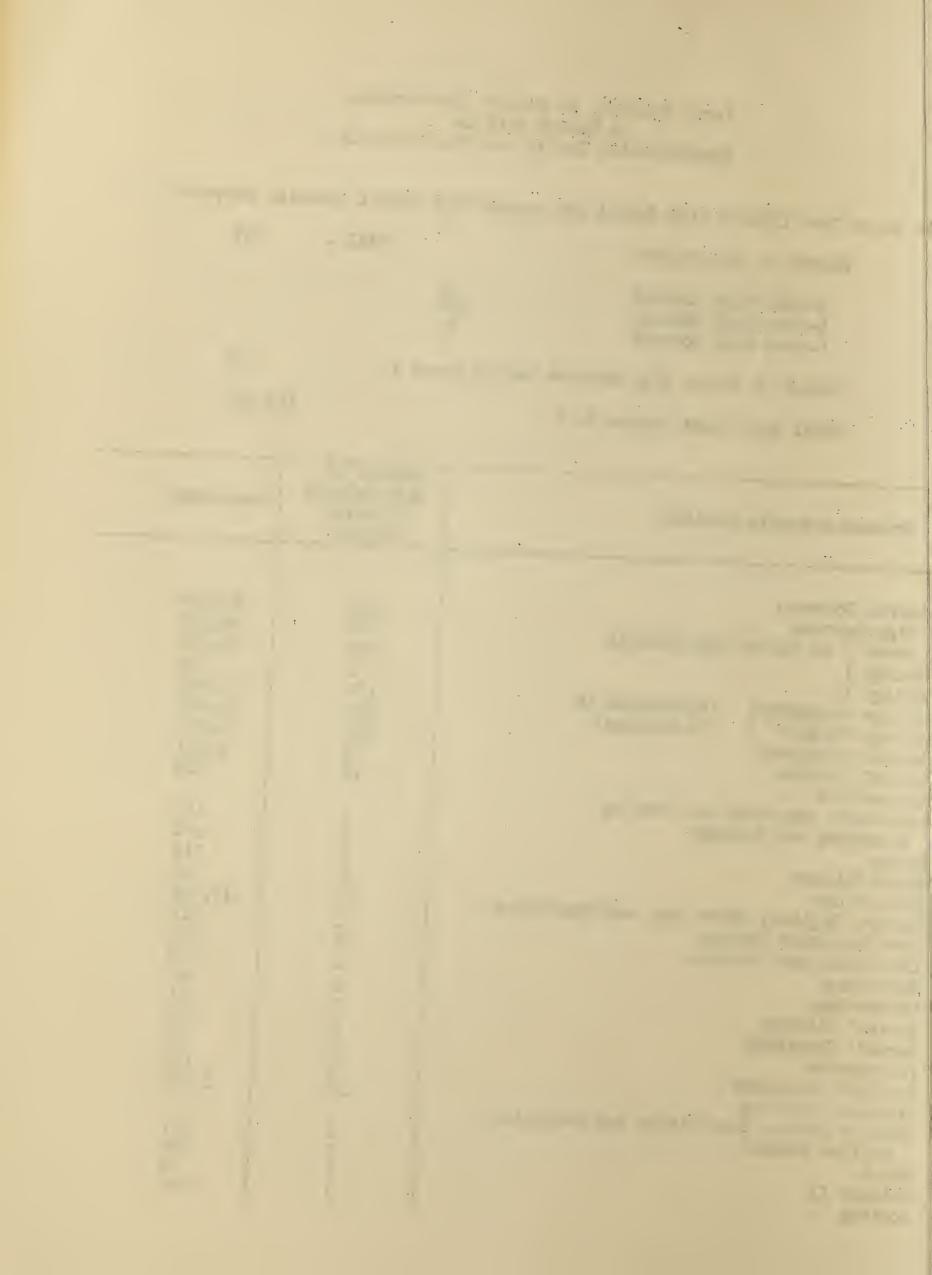


Facts Relating to Science Instruction in Grades 9-12 in Massachusetts Public Secondary Schools

Data taken from 1954-55 High School and Junior High School Biennial Surveys.

Number of High School:	Total -	247
3-year high schools 4-year high schools 6-year high schools	46 120 81	
Number of Junior High Schools having	Grade 9	88
Total Enrollment Grades 9-12		148,760

Science Subjects Studied	Number of High Schools Offering Subject	Enrollment
General Science: High Schools Grade 9 in Junior High Schools Biology II Biology II College Chemistry) (alternated in College Physics) 76 schools) General Chemistry General Physics Aeronautics Astronomy, Astronomy and Physics, Astronomy and Geology Botany Earth Science Electronics Health, Hygiene, First Aid, and Physiology Home Economics Science Industrial Arts Science Metallurgy Meteorology Nurses' Biology Nurses' Chemistry	Offering	16,469 12,588 25,354 113 10,954 5,967 4,209 3,537 569 173 281 111 40 17,938 15 516 29 62 24 40
Photography Physical Geography Physical Sciences Physics Survey, Electricity and Mechanics, Applied Science Radio Science II Zoology	1 4 47 3 7 1 3	77 141 1,878 107 236 29 297



Number of Schools that Require All Pupils to take:
General Science High Schools
Number of High Schools that have:
Individual Laboratory for Chemistry
Special Assignments of Science Teachers, as Reported:
Number of Teachers Who Are Department Heads 66
Number of Teachers Who Are Assistant Principals 29
Number of Teachers Who Are Coaches
Number of Teachers Who Are Guidance Counselors
Number of Teachers Who Are Principals
Number of Teachers Who Are Assistant Coaches 8
Number of Teachers Who Are Assistant Coaches 8
Number of Teachers Who Are Assistant Coaches

Number of Teachers Who Are Cafeteria Managers 1.

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Number of	Science Teachers in Massachusetts (Grades 9-12) 882
Number of	Teachers Who Teach Science Only
Number of	Teachers Who Teach: Science and Mathematics
	Science and Physical Education
	Science and Industrial Arts
	Science, Mathematics and Driver Education
	Science, Mathematics and Commercial Subjects
	Science, Mathematics and Physical Education
	Science, English and Commercial Subjects
	Science and Public Speaking
	Science, History, Mathematics and Physical Education
	Driver Education
	Science, Physical Education and Driver Education

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THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF EDUCATION

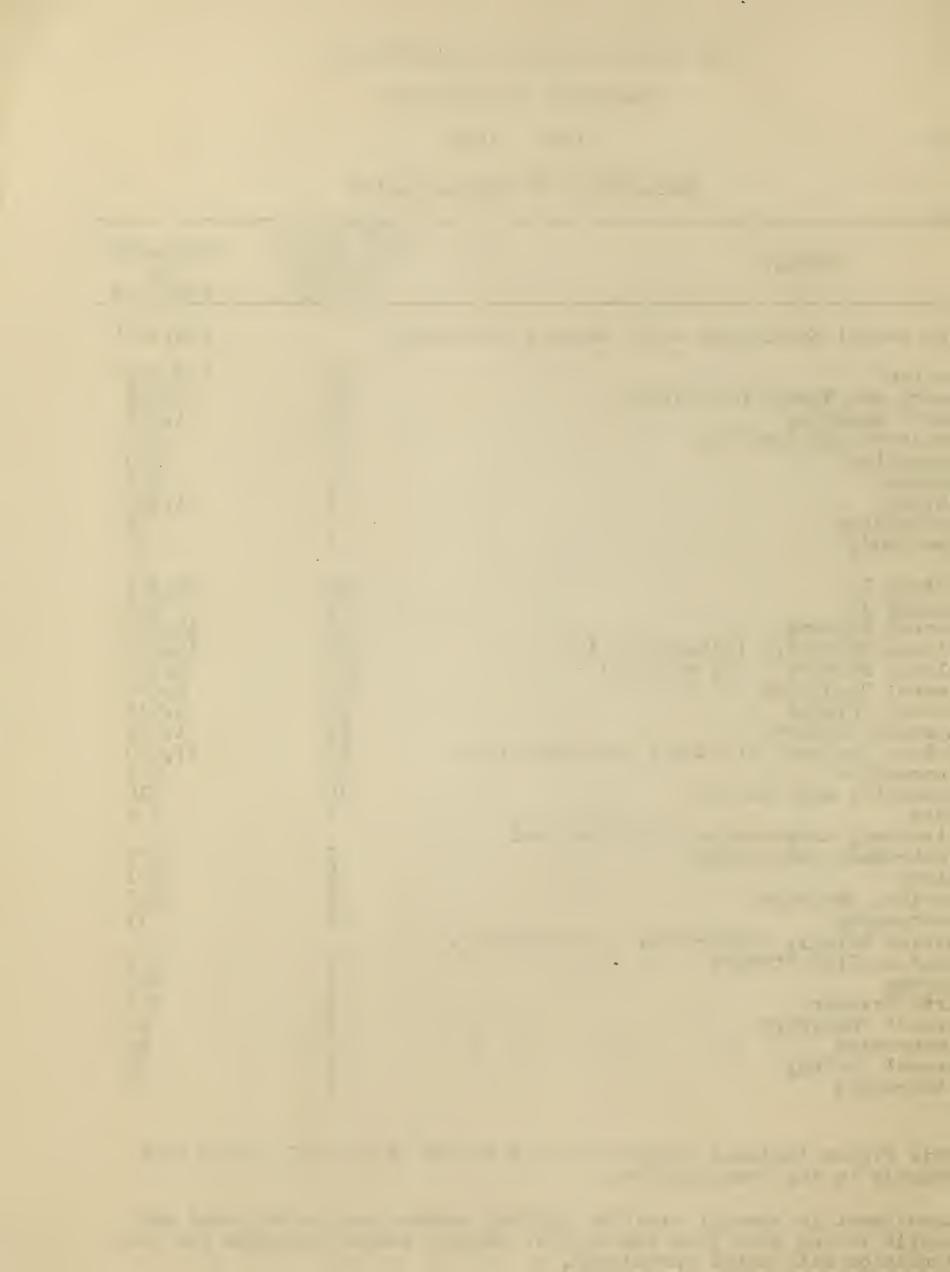
1954 - 1955

HIGH SCHOOL SUBJECTS STUDIED

	NUMBER OF HIGH SCHOOLS	DITONT I MENTE
SUBJECT	OFFERING	ENROLLMENT IN
	SUBJECT	SUBJECTS
High School Enrollment - 240 schools reporti	.ng	126,9281
English Speech and Speech Correction Public Speaking Dramatics and Debating Journalism Reading Library Lip Reading Word Study	240 26 17 10 8 4 2 2	128,004 ² 2,503 1,187 233 260 103 1,320 18 29
Biology II General Science College Chemistry (Alternated in College Physics 76 schools) General Chemistry General Physics Physical Sciences Health, Hygiene, First Aid and Physiology Aeronautics Industrial Arts Science Radio Astronomy, Astronomy and Physics, and Astronomy and Geology Botany Physical Geography Photography	229 14 203 189 178 11/1 79 47 61 18 10 7	25,354 113 16,469 10,954 5,967 4,209 3,537 1,878 17,938 569 516 236 173 281 141
Physics Survey, Electricity and Mechanics, and Applied Science Zoology Earth Science Nurses' Chemistry Electronics Nurses' Biology Meteorology	4 3 3 2 2 2 1 1	77 107 297 111 40 40 24 62

¹ This figure includes pupils enrolled in 240 of the 247 public high schools in the Commonwealth.

²Enrollment in special elective English courses not so reported and pupils taking more than one regular English course accounts for the variation with total enrollment.



SUBJECT	NUMBER OF HIGH SCHOOLS OFFERING SUBJECT	ENROLLMENT IN SUBJECTS
Science II Metallurgy Home Economics Science	1 1 1	29 29 15
U. S. History and Civics Problems of Democracy World History Civics Economics Modern History Ancient History Consumer Education World Geography Economic Geography Sociology European History since 1700 Latin America, Canada and Far East International Relations Local History	239 201 184 159 89 67 63 538 35 29 23 42 1	34,490 13,251 14,504 13,366 3,444 4,326 5,120 1,688 2,207 2,238 1,414 1,240 193 102 16
Plane Geometry Elementary Algebra Intermediate Algebra General Mathematics I General Mathematics III General Mathematics III Solid Geometry and Trigonometry Review Mathematics Trigonometry Solid Geometry Advanced Mathematics Advanced Algebra Refresher Arithmetic	227 224 209 187 21 2 168 73 26 17 13	19,735 16,727 14,592 10,858 759 78 3,131 2,361 979 770 397 375 102
French II French III French IV French IV French V Latin I Latin II (Caesar) Latin III (Cicero) Latin IV (Virgil) Latin III and IV (Cicero and Virgil) Spanish I Spanish II Spanish III Spanish IV	222 122 90 25 2 196 213 59 37 21 108 51 37	12,508 9,545 3,747 650 61 8,640 8,585 1,762 870 265 5,465 3,663 49

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SUBJECT	NUMBER OF HIGH SCHOOLS OFFERING SUBJECT	ENROLLMENT IN SUBJECTS
Italian II Italian III Italian III German I German III Portuguese I Portuguese II Polish I Polish II Greek I Modern Greek I Greek II Hebrew I Lithuanian II General Language	26 19 6 30 29 14 3 2 2 1 1 1 1	1,112 504 110 1,175 857 1714 97 534 13 44 96 30 314 154
Physical Education	209	102,369
Choral Music Band Orchestra Harmony I Harmony II History and Appreciation of Music Glee Club Music Appreciation Drum and Bugle Corps	174 150 101 36 3 30 29 17	21,165 6,500 2,483 929 52 649 3,982 1,312 57
Freehand Drawing Art Appreciation Art I Art II Art III Art III Arts and Crafts Fashion and Design Commercial Art Freehand Drawing and Art Appreciation Composition and Fainting	144 47 35 8 4 17 9 4 3	9,884 1,774 2,615 199 37 1,042 375 358 85 24
Clothing I Clothing III Clothing III Clothing IV Foods I Foods II Foods III Foods IV	132 98 56 8 118 89 44	5,499 2,152 975 166 4,093 1,991 569 59

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SUBJECT	NUMBER OF HIGH SCHOOLS OFFERING SUBJECT	ENROLLMENT IN SUBJECTS
Home Management Household Arts - Homemaking II Household Arts - Homemaking III Household Arts - Homemaking IV Home and Family Living Home Nursing Special Clothing Chef's Class Special Foods - Nutrition Home Design - Decoration Child Care	54 53 19 11 6 22 14 9 7 6 3	1,176 2,182 342 164 54 1,276 680 260 167 282 88 96
Typewriting II Typewriting III Typewriting I and II Typewriting II and III Stenography II Stenography II Stenography III Bookkeeping II Bookkeeping II Bookkeeping III Bookkeeping IV Business Training Office Practice Commercial Geography Business Mathematics II Secretarial Practice Salesmanship Personal Typewriting Office Nachines Commercial Arithmetic and Business Mathema Retail Selling Clerical Practice Transcription Penmanship Business Law Special Typewriting Filing Consumer Mathematics Consumer Education and Economics Accounting Distributive Education Commerce and Industry Business Management	230 226 81 1 27 207 18 128 39 150 146 102 86 73 77 144 328 24 20 19 19 13 13 13 9 9 9 9 8 5 5 3	20,666 10,291 10,291 1000 8,710 8,711 1000 8,711 1000 8,711 1000 1000 1000 1000 1000 1000 1000

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SUBJECT	NUMBER OF HIGH SCHOOLS OFFERING SUBJECT	ENROLLMENT IN SUBJECTS
Civil Service Record Keeping Clerical Bookkeeping Applied Business Writing Banking	3 3 1 1	522 125 110 178 122
Mechanical Drawing Woodworking Industrial Arts - General Shop Automobile Repairing Shop Mathematics Metal Working Printing Machine Shop Agriculture Electrical Shop Carpentry Power Machanics Shop I Shop II Shop III Shop III Shop IV Shop III and IV Blueprint Reading Cabinet Making Television Upholstery Vocational School Shop Boat Building Pattern Making	178 96 70 32 29 28 26 20 16 4 3 1 2 3 1 1 1	13,516 5,785 4,158 956 2,100 1,173 1,305 1,993 811 96 174 102 51 40 22 70 34 41 22 29 9 12
Psychology - Personality Human Relations - Social Living Occupations Military Drill Orientation	21 17 7 6 3	1,010 1,745 1,649 3,2143 351
Driver Education and Driver Training Driver Education - Classroom course only	211* 33*	

^{*}This information was secured from the Massachusetts Registry of Motor Vehicles.

Note: In an effort to shorten this report, we have taken the liberty of combining some courses under more general subjects.

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THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF EDUCATION

1954 - 1955

SUBJECTS STUDIED IN GRADE 9 OF THE MASSACHUSETTS JUNIOR HIGH SCHOOLS

SUBJECT	NUMBER OF SCHOOLS OFFERING SUBJECT	ENROLLMENT IN SUBJECTS
Enrollment (Including reports from 9th grades of twenty six-year high schools)	111	17,333
English Public Speaking Remedial Reading	111 3 2	17,333 318 459
General Science Health Physiology and Hygiene	88 21 13	12,297 4,378 1,169
Community Civics Ancient History Social Studies and Civics World History U. S. History and Government Geography	64 35 20 19 7 3	6,955 2,398 2,322 1,121 1,204 142
Algebra General Mathematics Business Arithmetic	96 74 44	8,243 3,978 2,382
Latin I French I Spanish Italian	86 61 9 3	4,482 3,128 345 106
General Business Typewriting Bookkeeping I Penmanship	44 17 11 8	3,015 1,640 663 925
Physical Education	99	15,665
General Music Band Glee Club Orchestra Choral Music Music Appreciation	61 42 41 37 25 5	6,795 388 1,513 326 2,798 300

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SUBJECT	NUMBER OF SCHOOLS OFFERING SUBJECT	ENROLLMENT IN SUBJECTS
Art Crafts Art Appreciation	90 7 1	5,838 158 293
Clothing Foods Home Nursing Foods and Clothing Home Management	86 76 9 8 1 ₁	3,156 2,855 838 357 321
Mechanical Drawing Woodworking Printing and Graphic Arts Metal Work General Shop Electricity Machine Shop Agriculture	66 57 l ₄ 1 33 33 7 3	2,747 1,849 1,103 1,085 1,111 245 57
Group Guidance Orientation Group Conference	21 ₁ 7 1 ₁	4,644 1,512 750

Note: In an effort to shorten this report, we have taken the liberty of combining some courses under more general subjects.

